

2014 WESTERN SOUTH DAKOTA HYDROLOGY MEETING

PRELIMINARY PROGRAM

Wednesday, April 9, 2014

**Alpine/Ponderosa Rooms and Rushmore F, G, and H
Rushmore Plaza Civic Center**

7:00 – 8:00 a.m.	REGISTRATION		
8:00 – 10:00 a.m.	Plenary Session 1 in Alpine and Ponderosa Rooms – 2014 Theme: Integrated Water-Resources Management (2.0 PDH) Moderator – Mark Anderson, U.S. Geological Survey		
8:00 – 8:10 a.m.	Welcome, general information	Mark Anderson and Daniel Driscoll, U.S. Geological Survey	
8:10 – 8:40 a.m.	Keynote: Landsat 8: A sharper eye in the sky	Tom Loveland, U.S. Geological Survey EROS Data Center	
8:40 – 9:20 a.m.	Mongolia: Integrating cultures, people, and research	Scott Kenner, South Dakota School of Mines and Technology	
9:20 – 10:00 a.m.	Keynote: TBA	TBA	
10:00 – 10:40 a.m.	REFRESHMENT BREAK in Rushmore G – Sponsored by TransCanada		
10:40 a.m. – 12:00 p.m.	Concurrent Session 2A in Alpine Room – Ecosystems (1.5 PDH) Moderator – TBD	Concurrent Session 2P in Ponderosa Room – In-Situ Mining Issues (1.5 PDH) Moderator – Kelli McCormick, South Dakota School of Mines and Technology	Concurrent Session 2H in Rushmore H Room – Climate and Stormwater (1.5 PDH) Moderator – Joyce Williamson, U.S. Geological Survey
10:40 – 11:00 a.m.	Stream health monitoring – Charles Jason Tinant, Delaine Peterson, Oglala Lakota College, and Delinda Simmons, Oglala Sioux Tribe Environmental Protection Program	Groundwater modeling of the hydraulic effects of the proposed Dewey Burdock uranium in-situ recovery project, Fall River and Custer County, South Dakota – Errol Lawrence, Hal Demuth, Petrotek Engineering Corporation, and John Mays, Powertech (USA), Inc.	An analysis of dryline structure and propagation influenced by the Black Hills – Erin Walter, Adam French, William Capehart, and Daren Clabo, South Dakota School of Mines and Technology
11:00 – 11:20 a.m.	Use of native algae to reduce nutrients in Lake Kampeska – Steven Quail, HDR Engineering, Inc.	Wastewater management at a proposed uranium in-situ recovery project – Jack Fritz, WWC Engineering, John Mays, Powertech (USA), Inc., and Hal Demuth, Petrotek Engineering Corporation	Long-term trends in mean annual streamflow in the United States for the period 1960 to 2012 – John Stamm, Mark Anderson, and Parker Norton, U.S. Geological Survey
11:20 – 11:40 a.m.	The influence of algae in aquatic ecosystems – Lisa Kunza, South Dakota School of Mines and Technology	In-situ recovery uranium mining restoration challenges – James Stone, South Dakota School of Mines and Technology, Thomas Borch, Amrita Bhattacharyya, Thomas Johnson, Elizabeth Ruedig, Colorado State University, and Ray Johnson, S.M. Stoller Corporation	Watershed fires and effects on storm water infrastructure – Richard Ommert and Dorothy Eisenbraun, RESPEC
11:40 a.m. – 12:00 p.m.	Environmental performance monitoring of Superfund remedies in the Clark Fork River and Silver Bow Creek, Montana – Joe Naughton, RESPEC	In-situ recovery uranium mining restoration challenges: geochemical modeling of post-mining site conditions – Ryan Truax, James Stone, South Dakota School of Mines and Technology, Thomas Borch, Thomas Johnson, Colorado State University, and Ray Johnson, S.M. Stoller Corporation	Urban storm water master planning – a case study – Teresa Patterson, RESPEC
12:00 – 1:55 p.m.	LUNCH in Rushmore F Room – with accompanying presentations (1.0 PDH) RESPEC: Todd Kenner, President John T. Loucks Distinguished Lecture: South Dakota Governor Dennis Daugaard (invited) – TBA		

2:00 – 3:40 p.m.	Concurrent Session 3A in Alpine Room – Anthropogenic Effects on Water Resources (1.5 PDH) Moderator – Greg Delzer , U.S. Geological Survey	Concurrent Session 3P in Ponderosa Room – Groundwater (1.5 PDH) Moderator – Joanne Noyes , South Dakota Department of Environment and Natural Resources
2:00 – 2:20 p.m.	<i>Estimating impacts of tile drainage on crop consumptive water use – Jeppe Kjaersgaard, Kul Khand, and Christopher Hay</i> , South Dakota State University	<i>Characterization of glacial aquifer properties using geophysical methods near Aberdeen, South Dakota – Karl Koth and David Bender</i> , U.S. Geological Survey
2:20 – 2:40 p.m.	<i>Denitrifying bioreactors for improved tile drainage water management in South Dakota – Cynthuja Partheeban, Jeppe Kjaersgaard, Christopher Hay, and Todd Trooien</i> , South Dakota State University	<i>Development of a new methodology to estimate base flow using multivariate analysis in the Northern Great Plains – Jennifer Bednar, Andrew Long, and Roy Sando</i> , U.S. Geological Survey
2:40 – 3:00 p.m.	<i>Williston Basin baseline water-quality assessment – Joel Galloway, and Joshua Valder</i> , U.S. Geological Survey	<i>Groundwater quality in Precambrian crystalline aquifers of the central Black Hills – Arden Davis, Alvis Lisenbee, Maribeth Price, Gary Smith, Erik Walega, and Henok Tiruneh</i> , South Dakota School of Mines and Technology
3:00 – 3:20 p.m.	<i>Septic system and groundwater quality in a vulnerable mountainous terrain – J. Foster Sawyer and Arden Davis</i> , South Dakota School of Mines and Technology	<i>A regional Black Hills groundwater-flow model of the Madison and Minnelusa aquifers: progress report – Andrew Long</i> , U.S. Geological Survey, <i>William Eldridge</i> , South Dakota School of Mines and Technology, and <i>Joshua Valder</i> , U.S. Geological Survey
3:20 – 3:40 p.m.	<i>Belle Fourche Irrigation District Indian Creek siphon replacement – Stephen Bareis and Jared Oswald</i> , RESPEC	<i>Pleistocene water-table fluctuations and shifts in aquifer contributions in Wind Cave National Park, Black Hills, South Dakota, USA – James Paces</i> , U.S. Geological Survey, <i>Margaret Palmer</i> , and <i>Arthur Palmer</i> , State University of New York
3:40 – 4:10 p.m.	REFRESHMENT BREAK in Rushmore G	
4:10 – 5:30 p.m.	Concurrent Session 4A in Alpine Room – Hydrologic Extremes (1.5 PDH) Moderator – Melissa Smith , National Weather Service	Concurrent Session 4P in Ponderosa Room – Hydrogeologic Characterization and Erosion (1.5 PDH) Moderator – J. Foster Sawyer , South Dakota School of Mines and Technology
4:10 – 4:30 p.m.	<i>Flooding at Renwick Dam, Tongue River Watershed, North Dakota, 2013 – Dennis Reep</i> , HDR Engineering, Inc., and <i>James Fay</i> , North Dakota State Water Commission	<i>Permeability of the Inyan Kara Group in the southern Black Hills area – Perry Rahn</i> , South Dakota School of Mines and Technology
4:30 – 4:50 p.m.	<i>2013 Record snowfall and precipitation in western South Dakota – Laura Edwards, Dennis Todey</i> , South Dakota State University, <i>Matthew Bunkers</i> , National Weather Service, and <i>John Abatzoglou</i> , University of Idaho	<i>Hydrogeologic characterization of the Bear Lodge Rare Earth Element Project, Wyoming – Aaron Payne, Errol Lawrence</i> , Petrotek Engineering Corporation, <i>Brant Dennis</i> , BD GeoEnvironmental Services, <i>Paul Bergstrom</i> , and <i>Kris Thompson</i> , Rare Element Resources, Inc.
4:50 – 5:10 p.m.	<i>The “Shutdown” blizzard and flooding of October 2013 in western South Dakota – Melissa Smith</i> , National Weather Service	<i>Shoreline erosion rates and processes along Lake Sharpe near Lower Brule, South Dakota – John Stamm</i> , U.S. Geological Survey, <i>Lillian Temple</i> , <i>Soonkie Nam</i> , and <i>Tim Lowman</i> , South Dakota School of Mines and Technology
5:10 – 5:30 p.m.	<i>Revisiting statistical aspects of the hydrometeorological hazards in Bangladesh – Imteaz Bhuiyan and Asma Chowdhury</i> , University of Regina, Saskatchewan, Canada	<i>Leaching characteristics of recycled concrete aggregate used as highway base – Bora Cetin</i> , South Dakota School of Mines and Technology
5:30 – 7:30 p.m.	POSTER SESSION AND EVENING SOCIAL (with refreshments) in Rushmore G Moderator – Janet Carter , U.S. Geological Survey	
	Comparing nutrient demands and metabolism in two lake outlet streams containing <i>Didymosphenia geminata</i> in Grand Teton National Park	Jaime Haueter and Lisa Kunze , South Dakota School of Mines and Technology
	Snow measurements in Rapid City, South Dakota using a Parsivel Instrument	Jorel Torres and Donna Kliche , South Dakota School of Mines and Technology
	Benthic macro-invertebrate diet selection in Rapid Creek, South Dakota	Russell Marlow and Lisa Kunza , South Dakota School of Mines and Technology
	Effects of <i>D. geminata</i> on growth rates and secondary production of benthic macroinvertebrates in Rapid Creek, SD.	Julie McGeary and Lisa Kunza , South Dakota School of Mines and Technology
	Calibration of AgriDrain control structure by using generalized “V” notch weir equation for flow measurement	Cynthuja Partheeban, Govinda Karki, Kul Khand, Jeppe Kjaersgaard, Christopher Hay, and Todd Trooien , South Dakota State University